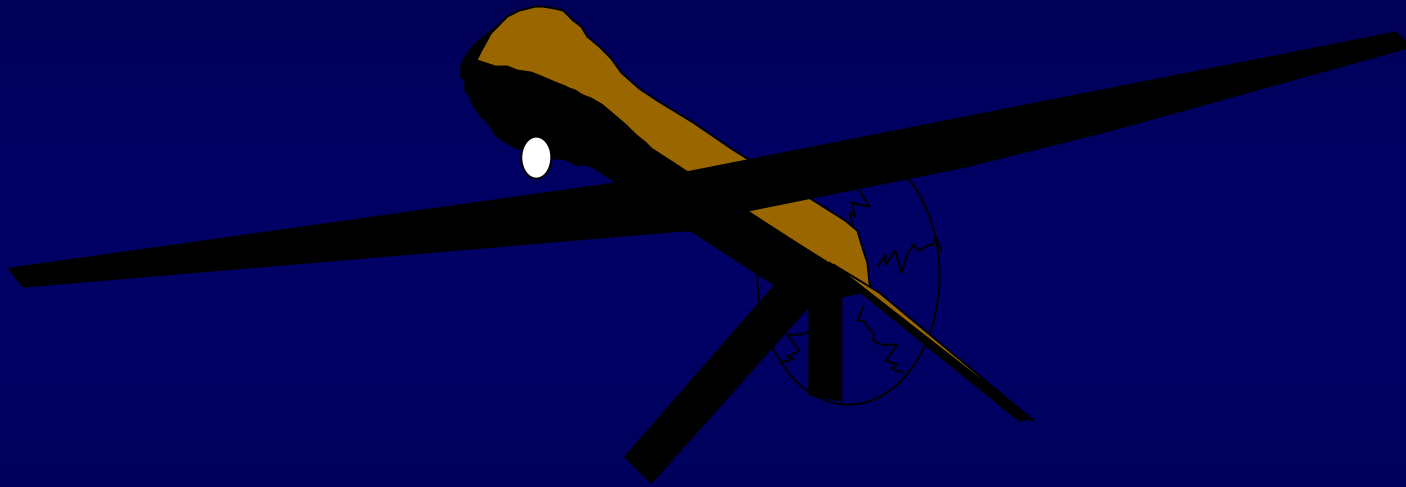


WATCHKEEPER TNA ISSUES



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Report Documentation Page			Form Approved OMB No. 0704-0188		
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1. REPORT DATE 02 SEP 2003		2. REPORT TYPE N/A		3. DATES COVERED -	
4. TITLE AND SUBTITLE Watchkeeper TNA,(Training Needs Analysis)Issues				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) UAV, UK				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release, distribution unlimited					
13. SUPPLEMENTARY NOTES See also ADM001676, UAV 2002 Conference & Exhibition., The original document contains color images.					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UU	18. NUMBER OF PAGES 31	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Aim of Today

- Overview of the TNA Process.
- UK Acquisition Cycle
- Scoping the Manning & Training Issues.
- Way Ahead.

The Aims of a TNA

- To define the training requirement associated with a new or changed capability.
- Identify the most cost effective method of meeting that requirement.

Why the TNA

- Identified as a requirement for all Services following the 1992 National Audit Office (NAO) Report concerning “Use of Simulators in Training”
- Tri-Service methodology required to satisfy request from “Directorate of Internal Audit” 1996 for common terminology (Joint Service Publication 502).

The TNA Deliverables

- Operational Task Analysis
- Gap Analysis
- Training Options Analysis
- Final Report with Endorsed Training Solution

The TNA Deliverables

- Scoping Report
- Operational Task Analysis
- Gap Analysis
- Training Options Analysis
- Final Report

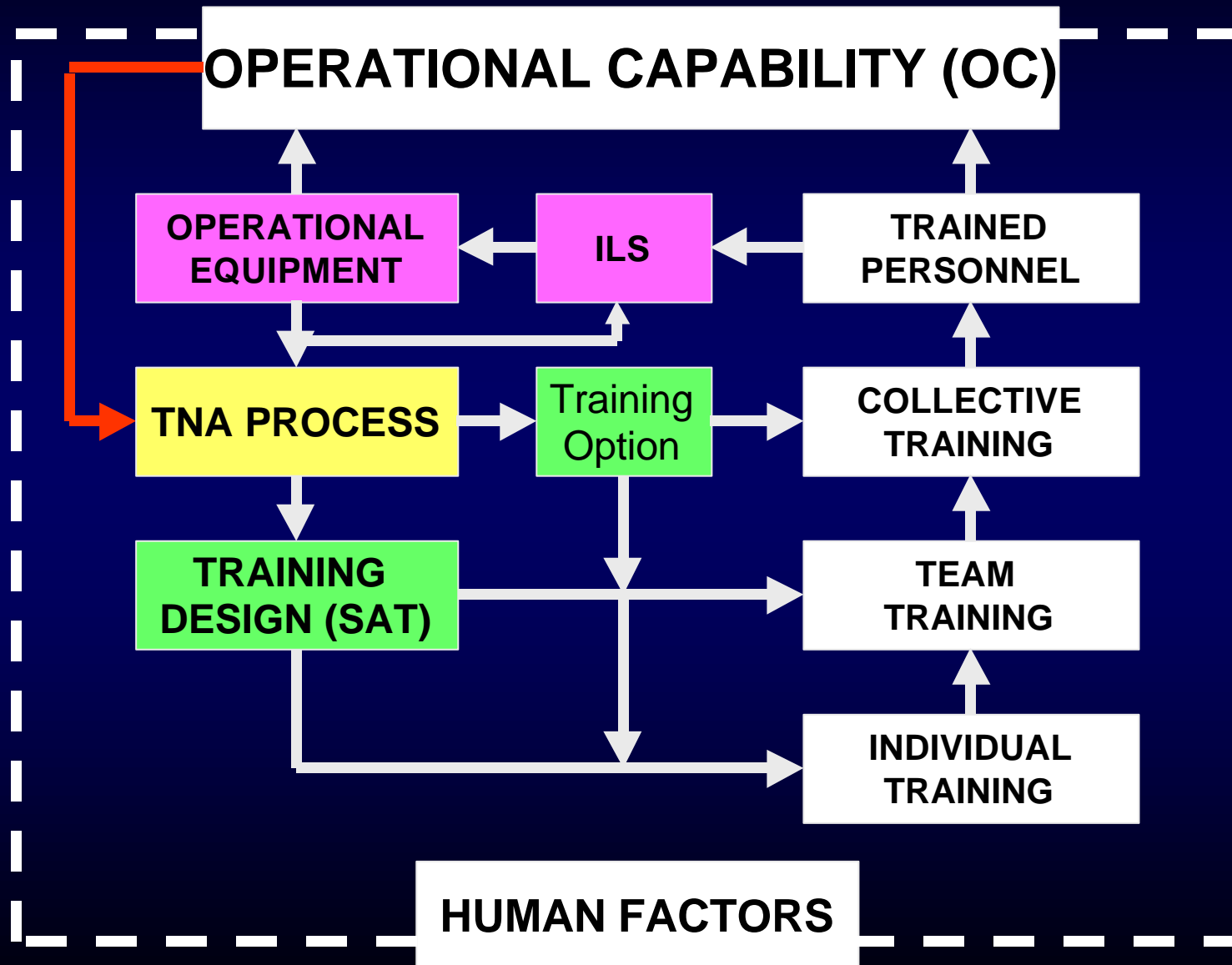
The TNA Deliverables

- Scoping Report
- Operational Task Analysis
- Gap Analysis
- Training Options Analysis
- Final Report
- Post Project Evaluation

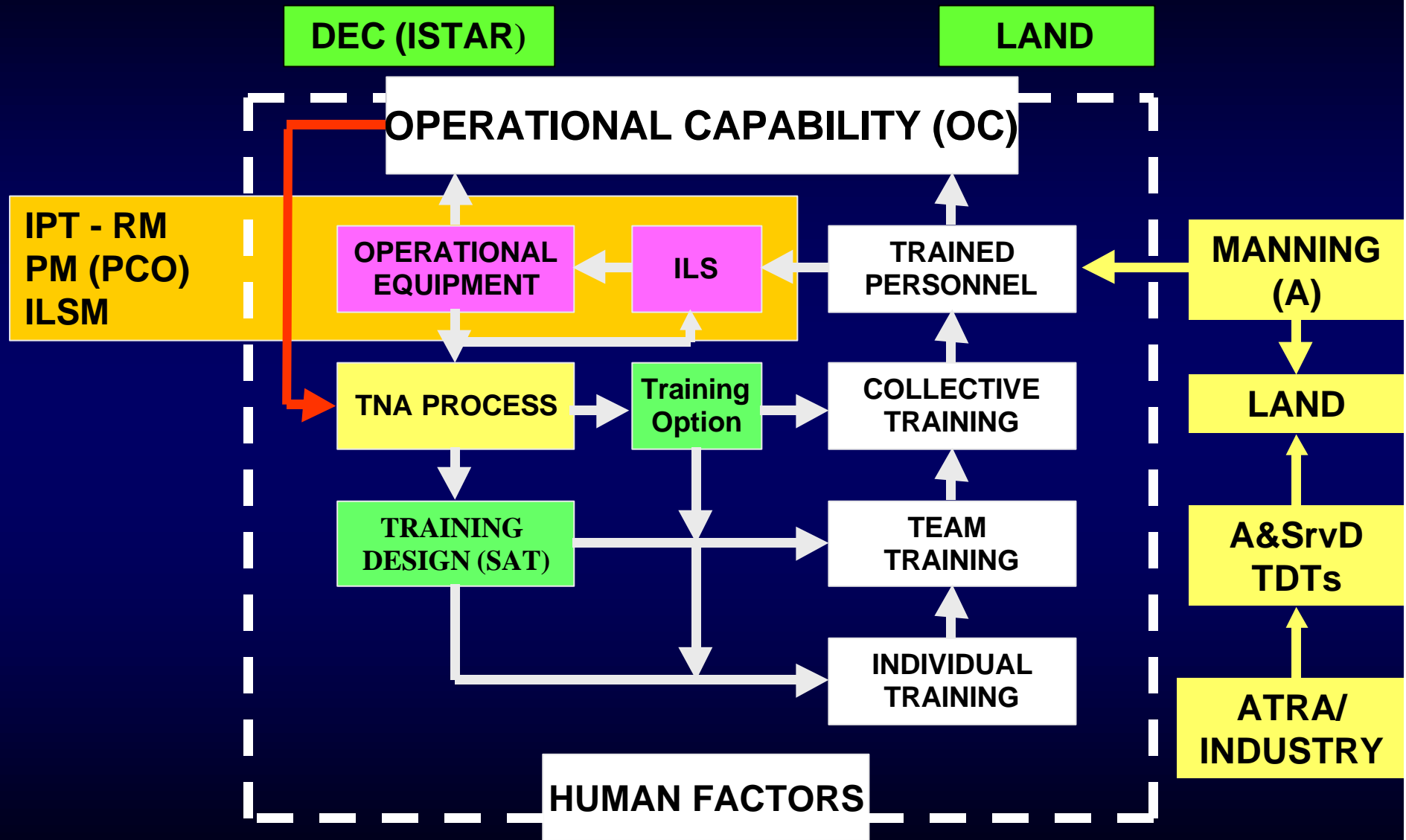
Scoping Strategy

- Establish and analyse the high risk areas of change.
- Assess tasks and allocate appropriate personnel.
- Estimate training gap and consider areas for embedded training.
- Conduct high level options analysis and broad order of costs to inform WLC.

Where Should the TNA Focus?

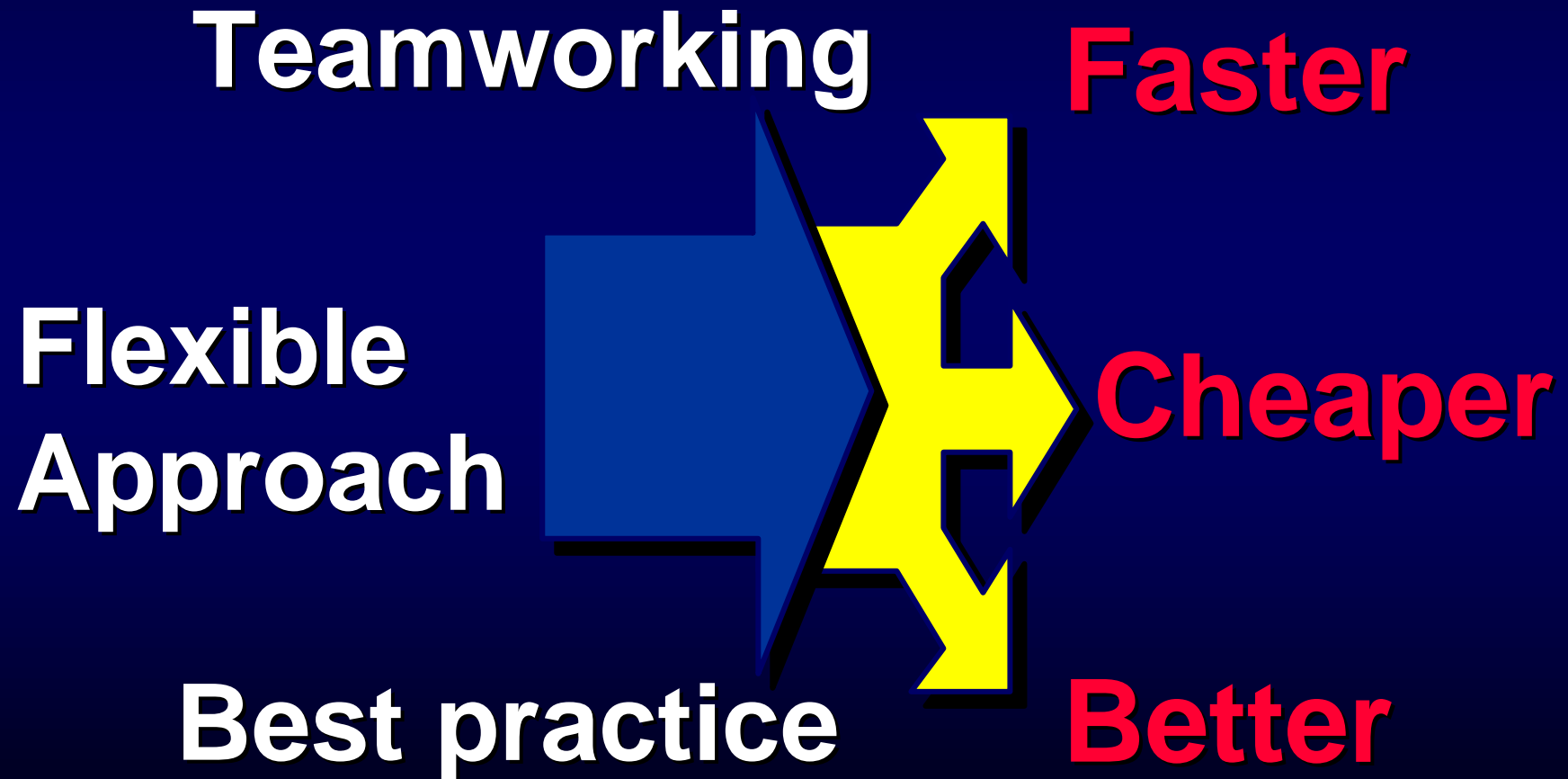


Who Are Responsible?



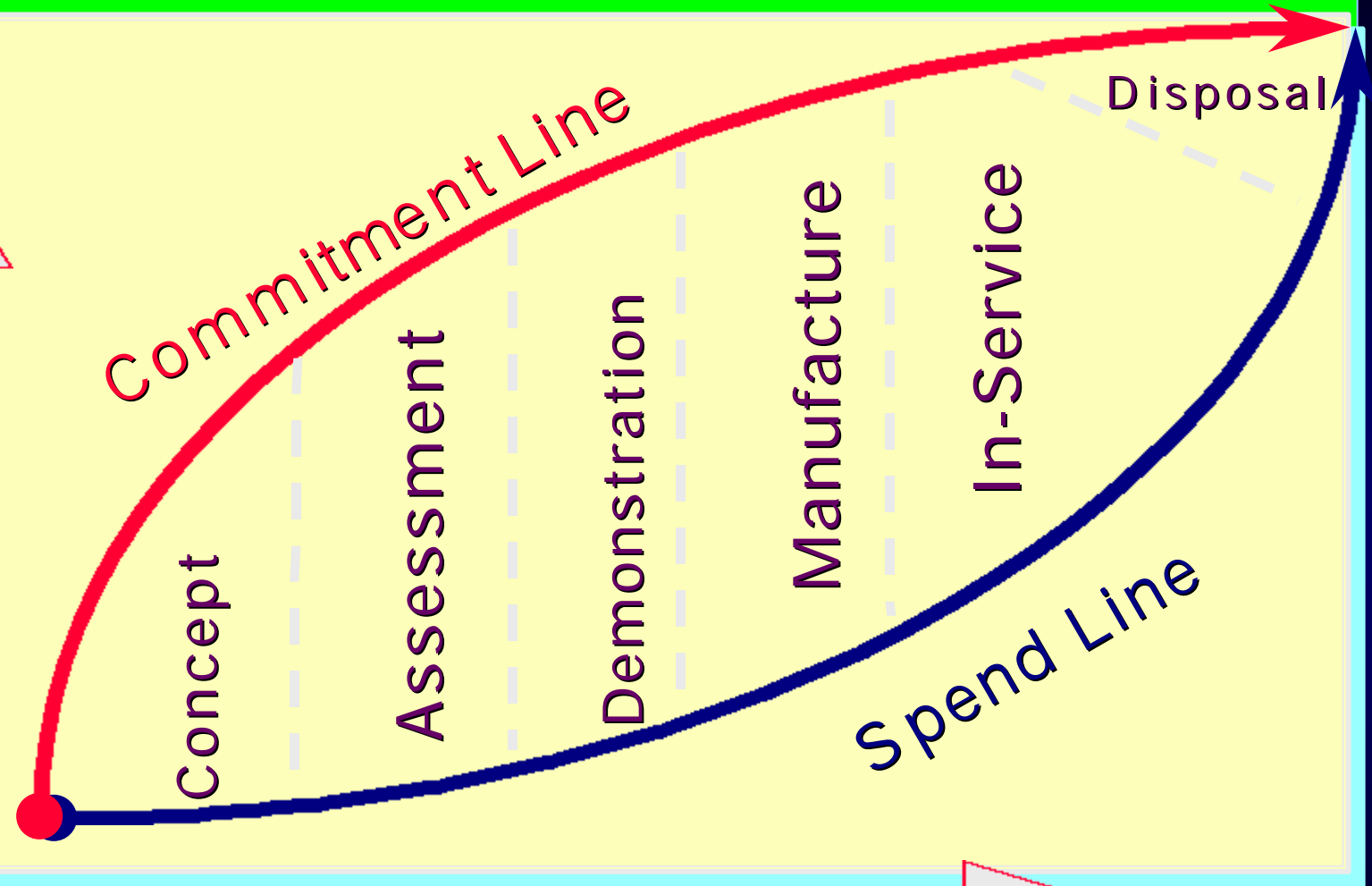
Smart Procurement

- What is it?



Spend and Commitment Curves

Project Funds



Acquisition Life Cycle

**Main
Gate
Approval**

**Commit
Industry to
Performance,
Time & Cost**

Concept Assessment Demonstration Manufacture In-Service Disposal

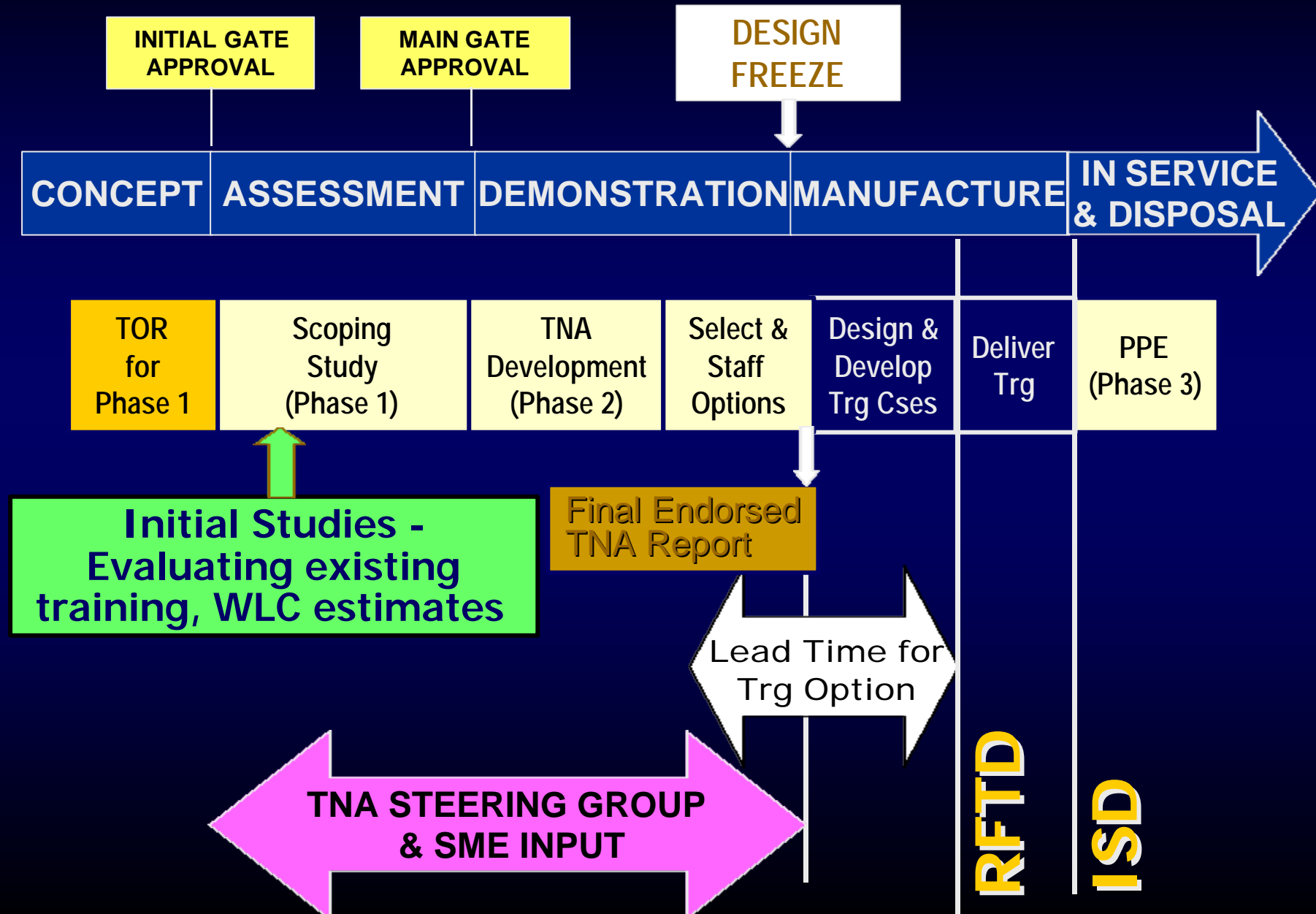
**Initial
Gate
Approval**

**Long Term
Contract
with
Industry**

Causes of Training Gap

- New Concept of Operations (CONOPS)
- **User Requirement Document** related
- New Systems/Equipments - **System Requirement Document** related
- Changes to Manpower - **Training Pipeline** related

Timing & Planning of the TNA Process



Implementation Issues - Establish Responsibilities for

- Transfer of Funding/Resource.
- Selection of Trials personnel.
- Conversion Training.
- Installation and Setting to work.
- Supporting Training Documentation.
- Posting and Manning.

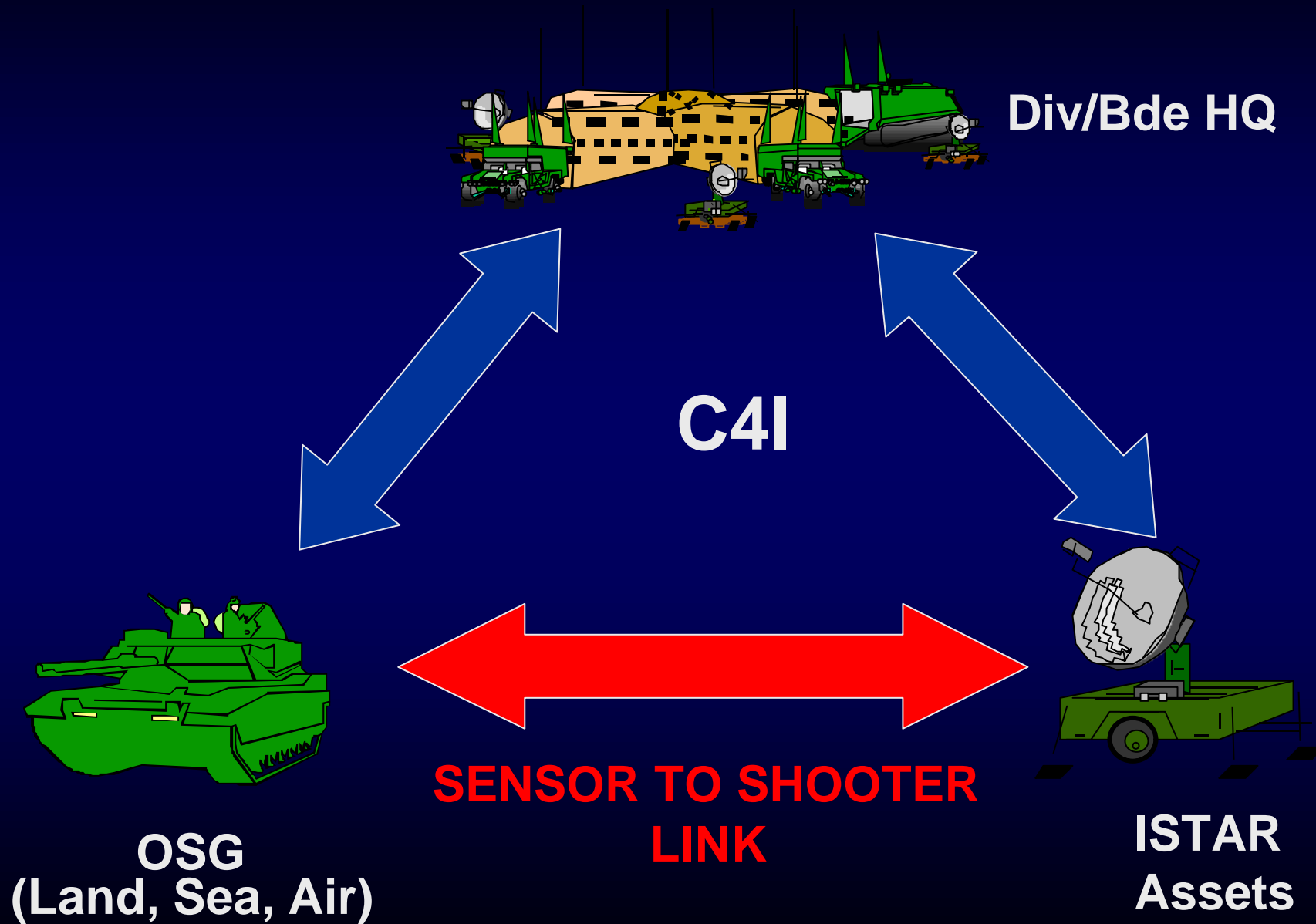
The Through Life Management Plan (TLMP)

- Overall Project Plan to readily identify Critical Path.
- There are six Lines of Development
- EQUIPMENT
- CONCEPTS AND DOCTRINE
- STRUCTURES
- PEOPLE
- **TRAINING**
- SUSTAINABILITY

Single Statement of Requirement states:

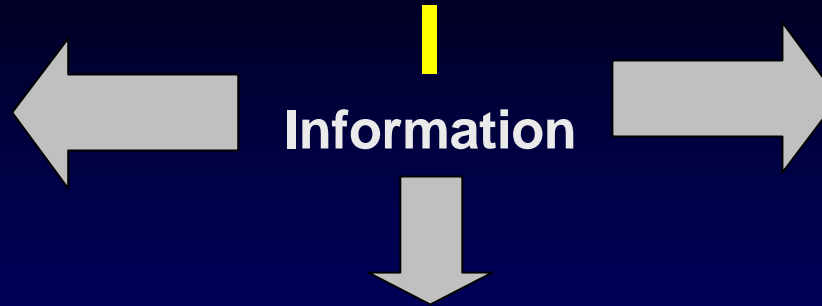
“WATCHKEEPER is required to provide accurate, timely and high quality imagery and Imagery Intelligence(IMINT) , collected, collated, exploited and disseminated primarily to satisfy land manoeuvre commanders’ critical information and intelligence requirements throughout a range of environments and across the spectrum of conflict”.

The Need for Flexibility



C4

Command
Control
Computers
Communication



Information

ISTAR

Intelligence
Surveillance
Target Acquisition
Reconnaissance

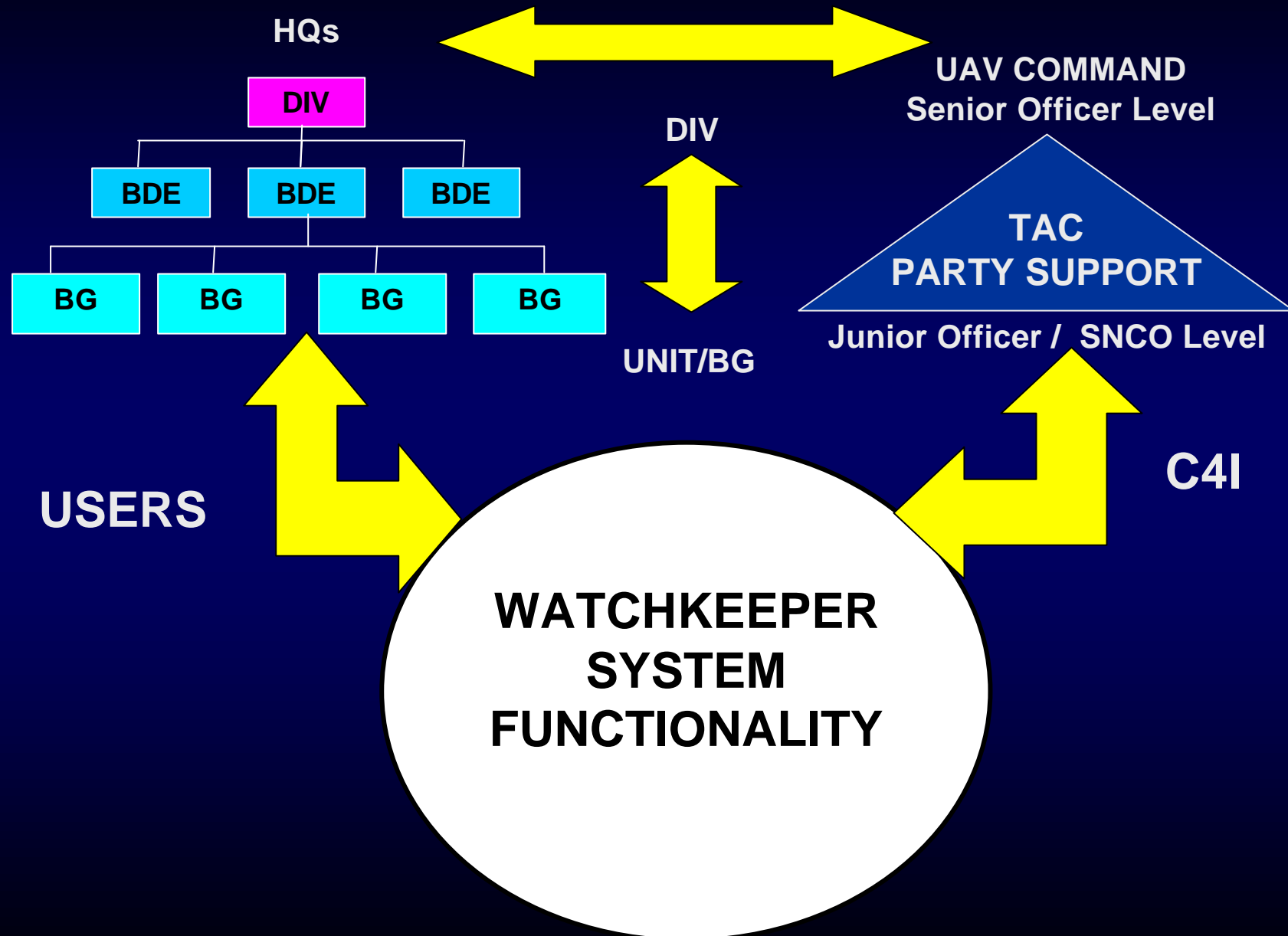
MANAGEMENT ISSUES

FUSION
CUEING
SHARING
CROSS-TASKING
DE-CONFLICTION
BURDEN SHARING
SENSOR – TO - SHOOTER

High Level Gaps

- CONOPS – Greater range of AO, Improved Sensor Capability, Operate in more climatic conditions, Longer Mission Times, Greater Sustainability – **Has more USERS**
- SYSTEM – Technically more advanced.
Increased complexity to exploit and maintain.
- PHOENIX TRAINING –Organisation, Deployment and Operational Procedures still developing, no real time interaction within GCS team, lack of equipment for Launch & Recovery.

WATCHKEEPER ORGANISATION



Manpower Concerns

- Troop Commander should have had experience as Forward Observation Officer or equivalent (ISTAR tactical experience).
- Mission Controller is trained when JNCO, unlikely to have the skills to fully exploit the new capability.
- Image Analyst is JNCO and has TI expertise only – increase in IMINT

Manpower Concerns

- If system is a combination of large and small UAVs, large UAV - will use prepared surface so who will L&R?
- Control Point will need to handle far more UAV missions – de-confliction, burden sharing and ATC are key issues.
- Manpower to support longer mission requirements.
- Large UAV likely to involve increased flight and ATC expertise.

Training Concerns

- Identify and plan Conversion training to ensure Collective Performance is achieved at IOC.
- Need to consider TESEX requirements.
- Need for mission scenarios in support of the increased type of operations (Unit to Div).
- Need for REAL time interaction within GCS for Mission Controller, Image Analyst and Air Vehicle Controller.
- In built fault diagnostics required (BITE).
- Part task trainers for L&R teams.
- Ability to “Grow” personnel through a structured pipeline.

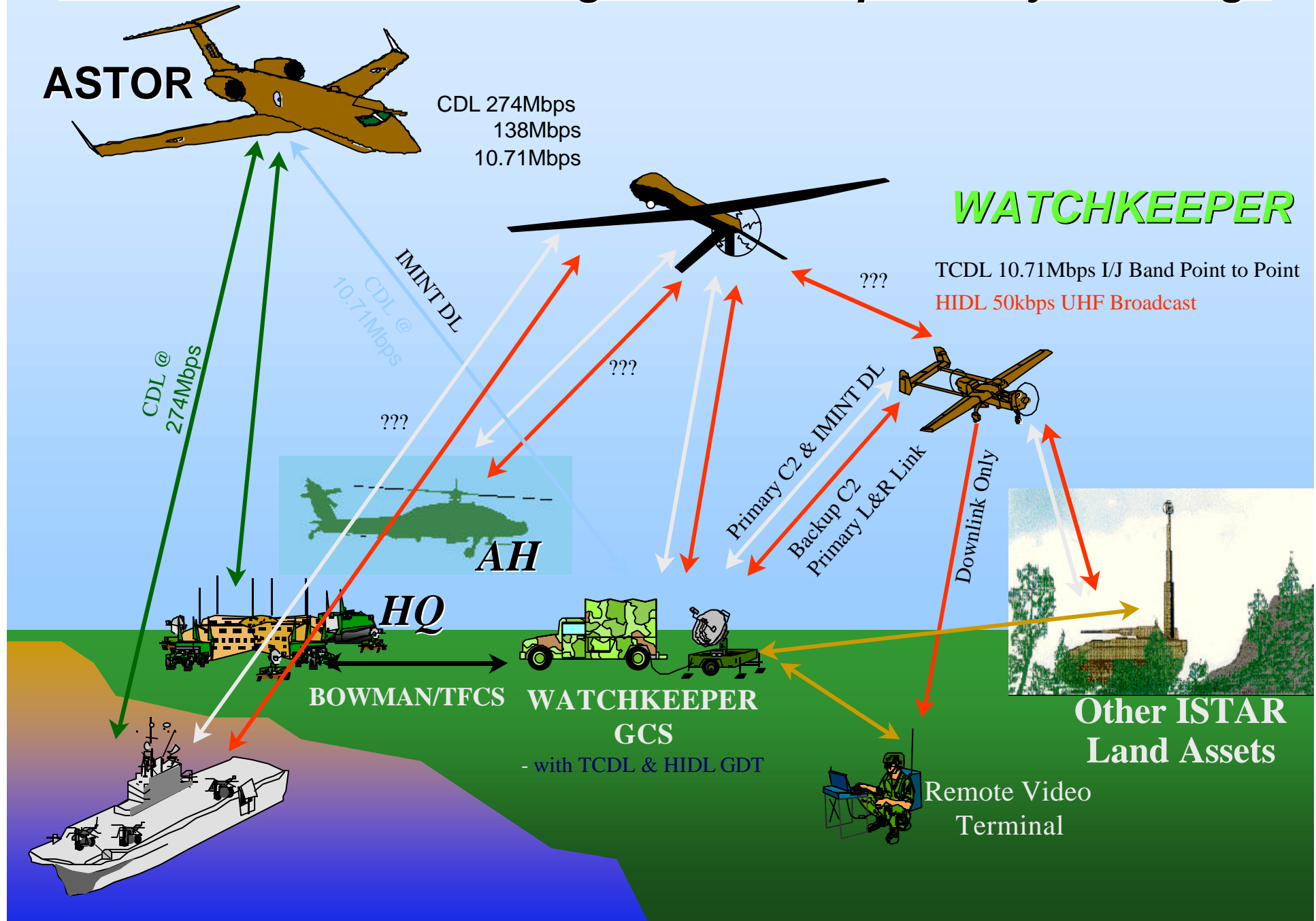
TNA Steering Group

- TUAUV RM - To ensure capability focus
- TUAUV ILSM – To advise supportability aspects
- LAND – To assess impact upon collective performance
- A&SD FD (TDTs)- DRA/ DINT/ DEME (A) – To provide changes to CONOPS, structures and personnel
- ATRA HQ – To assess impact upon individual training
- DSTL – To provide Technical Support
- **Contractors (HMI data, Safety Case, Costs)**

Training Acceptance Criteria

Criteria	Justification
No of employment groups	No of Training Pipelines
Manpower Rank/Numbers	Cost through life.
Size of Training Gap	Increased Training Resource & impact on FRC
Proposed scope/cost of embedded training	Capability and Cost
Proposed scope/cost of specialist Training Solutions	Capability and Cost
Availability of HMI(HCI) data	Data Validity
Availability of Contractor SME Support	Data Validity

The WATCHKEEPER Integration/Interoperability Challenge



Way Ahead – SIAP phase

- Agree WATCHKEEPER manning.
- Agree scope of embedded training.
- Start Collective & Implementation Plans.
- Identify personnel for Trials.
- Provide broad order costs of training against Contractor Options to inform WLC.
- USERS will be addressed as part of ISTAR TNA (e.g. FCAST requirements).
- Clear TORs for Contractor delivered TNA development (need to complete Deliverable 1 prior to MG).

Summary

WATCHKEEPER is a *scarce resource* that will be a valuable ISTAR asset to *many users*.

The need for operational flexibility is paramount but ***Flexibility is People Driven*** – not machine.

Any Questions?

